

**ECOSYSTEM ALTERATIONS (EA) WORKING GROUP  
MA Audubon Endicott Center**

**Wenham, MA  
8:00am to 3:30pm  
2 April 2004**

**MEETING SUMMARY**

***ACTION: Summary of Meeting Accepted***

The Working Group (WG) accepted the summary of the meeting held on February 26, 2004 with the following revisions.

- Page 2, first paragraph, last line: “1992” change to “1994”
- Page 14, second paragraph, first line: “...and side-scan sonar.” changed to “...but can be determined using side-scan sonar.”
- Page 17, Issue 1, Discussion: “..., however, there could be restrictions on other areas” added to third sentence
- Page 18, first paragraph, sixth line: changed to read “In the last two years, rolling closures have prevented fishing on parts of Stellwagen for 4 months of the year. These months are April, May, October, and November.”

***ACTION: Fished and Un-fished Area Comparisons***

Dave Wiley, Stellwagen Bank National Marine Sanctuary (SBNMS), will contact Allen Michaels to gather information concerning comparisons between fished and un-fished areas.

***ACTION: Precedent for Long-term Risk Coverage***

SBNMS staff will investigate if a precedent exists for the use of bonds or insurance to cover long-term risk.

***ACTION: Fisheries Information***

SBNMS staff will access NMFS Observer data, Study Fleet data, and team with fishermen and researchers to develop a research program for monitoring the Sanctuary. Information on catch, location and bottom topography will provide important information for Sanctuary management and will benefit fishery management in general.

***ACTION: Natural Disturbances Paper***

Chris Glass, Manomet Center for Conservation Sciences, will provide copies of a research paper by Joe DeAlteris detailing the effects of natural disturbances to marine environments along the Gulf of Maine.

***ACTION: Lindholm and Auster Presentations***

SBNMS staff will schedule James Lindholm and Peter Auster to present their findings on impacted and non-impacted area comparisons within the Gulf of Maine.

***ACTION: Changing Coastal Food Webs in the Gulf of Maine***

SBNMS staff will re-schedule Bob Steneck's (University of Maine) presentation on changing coastal food webs in the Gulf of Maine for the next meeting.

***ACTION: Bycatch Issues***

SBNMS staff will schedule Frank Mirarchi, commercial fishing representative, and Chris Glass, Manomet Center for Conservation Sciences, to give a presentation on bycatch issues at the next meeting.

***ACTION: Stock Assessment***

SBNMS staff will schedule a presentation on stock assessment for the next meeting.

***ACTION: Next Meeting***

The next meeting of the EA WG is set for April 27, 2004.

***AGREEMENT: Cables and Pipelines Action Plan, Options***

The WG accepted the Options section as written in Appendix A of this document.

***AGREEMENT: Cables and Pipelines Action Plan, Strategy 1***

The WG accepted Strategy 1 as written in Appendix A of this document.

***AGREEMENT: Cables and Pipelines Action Plan, Strategy 2***

The WG accepted Strategy 2 as written in Appendix A of this document.

***AGREEMENT: Cables and Pipelines Action Plan, Strategy 3***

The WG accepted Strategy 3 as written in Appendix A of this document.

***AGREEMENT: Cables and Pipelines Action Plan, Strategy 4***

The WG agreed to strike Strategy 4 of the Cables and Pipelines Action Plan.

***AGREEMENT: Cables and Pipelines Action Plan, Strategy 5***

The WG re-numbered Strategy 5 to Strategy 4 and accepted the new Strategy 4 as written in Appendix A of this document.

***AGREEMENT: Strategy 6 Rationale for Cables and Pipelines Action Plan***

The WG agreed to strike the rationale for Strategy 6 of the Cables and Pipelines Action Plan.

***AGREEMENT: Cables and Pipelines Action Plan, Strategy 6***

The WG re-numbered Strategy 6 to Strategy 5 and accepted the new Strategy 5 as written in Appendix A of this document.

***AGREEMENT: Cables and Pipelines Action Plan Approved***

With revisions as shown in Appendix A, the WG approved the Cables and Pipelines Action Plan.

***AGREEMENT: Mobile Gear Recommendation 5 Struck***

The WG agreed to strike Recommendation 5 from the proposed mobile gear recommendations list.

***AGREEMENT: Postpone Mobile Gear Recommendations Discussion***

The WG agreed to postpone the discussion on Mobile Gear Recommendations until the next meeting.

***Working Group Attendees (April 2, 2004):***

<b>Name</b>	<b>WG Seat / Affiliation</b>	<b>Attendance</b>
Porter Hoagland	WG Chair	Present
David Wiley	Team Lead (SBNMS)	Present
Ben Cowie-Haskell	Co-Lead (SBNMS)	Not-Present
Michel J. Kaiser	Woods Hole Oceanographic Institution	Not-Present
Robert Steneck	University of Maine	Not-Present
Les Watling	University of Maine	Not-Present
Bob Kenney	University of Rhode Island	Present
Chris Glass	Manomet Center for Conservation Sciences	Present
Frank Mirarchi	Commercial Fishing Industry	Present
Russell Sherman	Commercial Fishing Industry	Present
Phillip Michaud	Commercial Fishing Industry	Present
Mary Beth Tooley	Commercial Fishing Industry	Present
Richard Ruais	Commercial Fishing Industry	Present
Bruce Munson	Recreational Fishing	Present
Jud Crawford	Conservation Law Foundation	Present
Geoffrey Smith	Environmental Defense	Present
Robert Buchsbaum	MA Audubon Society	Present
Rachael Taylor	The Nature Conservancy	Present
Stormy Mayo	Center for Coastal Studies	Not-Present
Susan Murphy	NMFS	Not-Present
Leslie Ann McGee	NEFMC	Not-Present
Susan Snow-Cotter	MACZM	Not-Present
Tony Wilbur	MACZM Alternate for Susan Snow-Cotter	Present
Tom Nies	NEFMC Alternate for Leslie Ann McGee	Present
Allison Ferreira	NMFS Alternate for Susan Murphy	Present
<b><i>Technical Advisors</i></b>		
Richard Taylor		Not-Present
Alan Micheals		Not-Present
David Pierce		Not-Present
James Lindholm		Not-Present
<b><i>Others Present</i></b>		
Craig MacDonald	SBNMS	Present
Timothy Feehan	PSGS	Present
Mike Thompson	PSGS	Present
Ed Lindelof	NMFS/NMSP	Present
Joe Green	NOAA OLE	Present
Bill Leavenworth	UNH/HMAP	Present
Karen Alexander	UNH/HMAP (NSC)	Present
Jackie Odell	Northeast Seafood Coalition	Present

## **WELCOME, INTRODUCTIONS AND ADOPTION OF AGENDA**

Porter Hoagland, WG Chair, opened the meeting and welcomed all members of the Ecosystem Alteration WG. After opening comments attendees briefly introduced themselves. The meeting agenda was presented and set for the day. The Chair then called for the acceptance of the meeting summary from February 26, 2004. Changes were suggested by the WG, and pending those changes, the Meeting Summary was accepted.

### **Language for Meeting Tapes**

Bruce Munson, recreational fishing representative, read the language for the usage of meetings tapes for the record:

**The meetings are being recorded for educational and communication purposes only. In that context, the views of the participants reflect the spirit of scientific and policy debate and are not intended to be binding on the individuals or their organizations in other contexts or proceedings. In addition, they are recorded only for use by members of the Ecosystem Alteration Working Group and are not to be distributed outside of the group's membership.**

## **OLD BUSINESS AND ACTION ITEMS**

David Wiley, SBNMS, reviewed the action items identified during the last meeting. WG members were asked to provide input as necessary.

### **Addition of a Paragraph of Intent and Preamble to Cable and Pipeline Options Documents**

Porter Hoagland, WG Chair, wrote an overview for the draft Cable and Pipeline Action Plan to provide background information and the intent of the Action Plan. The draft Cable and Pipeline Action Plan, with the added Overview section can be found on Appendix A at the end of this document.

### **National Marine Sanctuary Program Staff to Answer Fishing Regulation Authority Question**

Bruce Munson, recreational fishing representative, and Ed Lindelof, National Marine Sanctuary Program (NMSP), provide their findings in answer to the question: Can SBNMS regulate fishing in the SBNMS? The results of their findings can be found below in the Presentations section of this document.

### **Document Change in Condition of the SBNMS Since 1994**

The WG suggested that changes, since 1994, in fishing effort should be documented. It was suggested that, in regard to mobile fishing gear, the sanctuary is being less impacted at this time than at the time of designation. In response to this issue, Dave Wiley, SBNMS, Jud Crawford, Conservation Law Foundation (CLF), and Bill Leavenworth and Karen Alexander, University of New Hampshire HMAP Program (UNH HMAP), provided presentations. The results of their findings can be found below in the Presentations section of this document.

## **PRESENTATIONS**

### **Then and Now I: Impacts of Mobile Gear and Fishery Changes Since Sanctuary Designation in 1992**

Dave Wiley, SBNMS, described the changes in mobile fishing effort within the SBNMS. Using geographic information systems (GIS), a spatial "footprint" was made using data from 2001-2002 and

then compared to 1994-1995 to see if effort reduction has in fact reduced the spatial distribution of mobile gear within the Sanctuary. This information can then be used to determine if habitat in the SBNMS is in better condition today than at the time of designation.

#### *Spatial Distribution of Mobile Fishing Gear in 2001-2001 Versus 1994-1995*

Data on the spatial distribution of mobile fishing gear within the SBNMS was collected during standardized surveys conducted in 1994-1995 and 2001-2002. Surveys were conducted using 5 km transects through the Sanctuary to collect at-sea sightings of actively fishing vessels. Looking at the GIS spatial “footprint” of effort, the distribution of mobile fishing effort has changed between 1994-1995 and 2001-2002. In 1994-1995, 237 vessels were surveyed and showed that mobile fishing effort was more uniformly distributed throughout the Sanctuary, with a “hot spot” located in the Northwest end of Stellwagen Bank. From 2001-2002, 134 vessels were surveyed with results that showed mobile fishing effort was confined to general areas in the North and in the South ends of Stellwagen Bank, with a “hot spot” in the Southeast corner of the Bank. It is determined that by comparing these distributions, effort reduction has reduced the spatial distribution of mobile fishing vessels within the SBNMS.

#### *Present Habitat Condition Versus Condition at Designation*

Since the time of designation for the Sanctuary, many changes have occurred in the commercial fishing fleet. Regulations, such as limiting trawl-fishing vessels to 12-inch roller gear, and area closures have moved effort to other locations. In addition, fixed-gear, such as lobster traps, have moved into these areas and have forced mobile fishing vessels relocate. Increased technology and changes in fishing practices have also enabled fishermen to select areas more efficiently, reduce actual fishing time and increase the value for catch per unit effort (CPUE). These changes have reduced the impact on certain habitat types, particularly harder and more complex habitat.

For cod, individual fish mortality has been shown to differ between habitat types. A study on juvenile cod mortality across 5 different habitat types has shown that mortality decreases as the benthic habitat diversity increases. The 5 habitat types studied were:

- Flat Sand
- Cobble
- Short Sponge of Minimum Density
- Short Sponge of Maximum Density
- Tall Sponge of Minimum Density

Juvenile cod mortality was highest for flat sand. Mortality decreased with the other habitat types. Short sponge of maximum density showed the lowest mortality. Within the Sanctuary, biogenic structure is increasing in areas with no fishing. With fishing effort being reduced in harder and more complex habitat types, it could be concluded that this particular habitat type may be in better condition today than at the time of designation.

#### *Questions & Answers*

**Question 1:** There have been many changes over the years in terms of types, styles, practices, and technology that may contribute to gaps in the observed data. Isn't there a need for more detail, such as types of boats (draggers vs. scallopers), boat aggregation, boat density, and bottom type?

**Answer:** More detail would be beneficial. This is what was observed through the surveys, and it is only a first look. It is important to have more information from the fishermen themselves.

**Comment:** With changes to the commercial fishing fleet such as increased technology and changing fishing practices, the WG feels it is important to know where fishing is occurring in relation to bottom types. Information on how fishermen fish and what they are catching would help fill the gaps in the data for the distribution of effort. Currently, the MA Fishermen's Partnership is in the initial phases of mapping fishing effort. They are working with all industry groups to find out where fishermen fish and why, taking into account regulations and area closures. Landings are also being collected and information on where specific fishermen, from specific ports, are fishing is being recorded.

**Question 2:** Can the distribution of fishing vessels within the Sanctuary be shown with bottom topography to compare not only the distribution of effort, but the bottom types being fished as well?

**Answer:** Yes. Bottom topography can be included with the distribution of mobile fishing effort.

**Question 3:** Given the concerns over the quality of Vessel Trip Report (VTR) data, is it worth the time and effort to use VTR data?

**Answer:** VTR data provides a good overall look at the general area that fishermen are fishing. VTR data is used to observe general trends about where a vessel could be.

**Comment:** Given the concerns over data quality from VTR, the WG felt it important to explore the feasibility of developing a project to gather more information concerning commercial fishing within the Sanctuary. This program could draw from the expertise of fishermen and scientists and help fill in gaps concerning what fishing activities are occurring relative to bottom topography. Such a program could be similar in design as the MA Fishermen's Partnership or Study Fleet Programs already being implemented. Detailed commercial fishing information in conjunction with the detailed bottom topography already available for the Sanctuary, would be ecologically important to the Sanctuary.

## **Then and Now II: Trends in Fish Size in the SBNMS**

Jud Crawford, Conservation Law Foundation, described how the size of the largest individuals has changed over time for species within the Sanctuary. Using information from cod bones from historical American Indian dumping grounds, the size of the largest individuals can be shown to have decreased to an average size that a fifth of the historic record.

### *Fish Population Size Composition*

By looking at data from the historic record and from recent National Marine Fisheries Service (NMFS) survey trawls, the average size for the largest individuals over many fish species has been decreasing. For cod, comparison to bones found in American Indian dumping grounds (4,000 to 5,000 years old) and fish caught in NMFS survey trawls show a decrease in the mean size of the largest individuals by as much as eighty percent. From 1960 to 2000, white hake taken from NMFS survey trawls in the SBNMS shows a decrease of 45 cm in average length for the largest fish. This trend in the reduction of the maximum length is reflected in most of the commercially fished species found in the Sanctuary. Over time, the length frequency distribution for fish species in the Sanctuary has shifted to a lower average length and the numbers of both the largest and smallest fish have decreased.

### *Ecosystem Consequences to Changes in Fish Population Structure*

For cod in the Sanctuary, the observed trend shows a decrease in average length, and fewer numbers of both the largest and smallest fish. This shift could affect the SBNMS ecosystem as a whole. Larger fish have increased fecundity. Large fish also have different habitat and feeding needs than smaller fish. The removal of the largest fish may have unknown effects on the ecosystem. There could be impacts on the food web or changes in species composition, such as the replacement of one species over another (e.g., dogfish replacing cod). The ecosystem must be studied to determine if an environment exists that supports large fish.

### *Questions & Answers*

**Question 1:** If there were a large recruitment event, would that skew the data towards smaller fish?

**Answer:** Not for what is being looked at here. This is just showing the size of the largest fish caught in the NMFS survey trawls.

**Question 2:** How many NMFS survey trawls were conducted within the Sanctuary?

**Answer:** Not completely sure, but there should be 5 or 6 stations that are surveyed within the Sanctuary.

**Question 3:** In terms of egg production, what comparisons can be made between 1 large fish and a few small fish?

**Answer:** One large fish could produce more eggs and spawn over a longer period of time than. It is important to have a natural population structure that contains very large fish, as well as all other sizes.

**Question 4:** The NMFS trawl survey may not be the best method to gather this data. Could there be a sampling bias?

**Answer:** This could be possible, but the long-term aspect of the survey trawl is key. Long-term data can be difficult to get, however the trends shown are real.

**Comment:** Some WG members noted that the maximum sustained swimming speed of the largest fish may enable them to outrun the NMFS trawl survey. Very large fish are more capable of sustaining a swimming speed comparable to the survey trawling speeds, and may sustain this speed for longer than the 20-minute survey trawl. This would bias results to smaller sized fish.

**Question 5:** On the graph, is the size of small fish decreasing?

**Answer:** No, the number of small fish is decreasing. However, this could be a factor of the mesh size used over time.

**Comment:** Some WG members felt it is important to determine if there is currently an environment present that supports large fish. Within the Sanctuary, biodiversity needs to be maintained and the size of fish is an important factor. For fisheries management, the size reduction of the largest fish is anticipated but for Sanctuary management, it is problematic. Fewer large fish could impact the population, which in turn could affect biodiversity within the Sanctuary. If methods for addressing this problem exist, they should be considered.

**Comment:** Other WG member expressed that the biodiversity issue is understood, however fish migrate in and out of the Sanctuary. Because of this, management within the Sanctuary will not



be able to address the problem of a reduction in size of the largest fish. Fishing mortality needs to be addressed regionally. Fisheries management currently manages for maximum sustainable yield (MSY). Midsized fish provide the maximum recruitment into the fishery.

### **Then and Now III: Fishing for Baselines: What Do 19<sup>th</sup> Century Logs Tell Us?**

Bill Leavenworth and Karen Alexander, UNH HMAP, show the historical representation of Stellwagen Bank on nautical charts dating back to 1616. The charts show how the representation of the bank has changed in both the geographic location and viability of the cod fishery over time. Old logbooks also provide a unique historical perspective, and are detailed enough to make estimates of historical cod biomass on the Scotian Shelf.

#### *Early Nautical Charts Representing Stellwagen Bank*

Early nautical charts show information on fishing grounds and depth contours. The first chart to show the area of Stellwagen Bank as a fishing area is the 1635 edition of John Smith's *Map of New England*. The chart shows a fishing vessel over a large hump of fish in the area of Stellwagen Bank. The Bank itself appears in later charts, though in differing geographic locations and scales. It is also broken into Inner, Middle, and Outer Banks instead of one large bank. Bottom conditions are also shown on these later charts, as vessels used bottom samples to determine the distance from shore and longitude for navigation purposes. In 1855, the U.S. Coast Survey Chart of Stellwagen Bank shows the Bank, as we know it today, complete with thorough depth soundings and shipping lanes.

#### *Early Logbook Information*

Since the payment of vessels and crews was dependent on the number of quintals (112 lbs. of dry fish) caught, accurate records were kept by vessels to keep track of the number of quintals caught by each crewmember. Original logs were kept to track duties on salt, based on the tonnage of each vessel. Information on salt and cod catch was important to prove that the vessel was involved in the cod fishery. In 1854, logbooks became standardized and sometimes included information on weather, bottom conditions, fish lengths, and gut contents. Logs also contained fishing agreements, which included inspection certificates that provided a description of the gear, names and residences of the individual fishermen, beginning and ending dates of the trip, and the number of quintals.

#### *Estimates of Historical Cod Biomass on the Scotian Shelf*

During the time when accurate logbooks were being kept, the fleet was fishing the Grand Banks on the Scotian Shelf, using traditional hand-line fishing methods. Data from the logbooks provided detailed information on the percentage of the fleet that fished the Grand Banks for any given year. Based on this information, biomass estimates can be made from 1852-1859. By 1859, the introduction of tub trawls by the French had taken hold. Historical records indicate an average size for cod in the 1850's to be 20 lbs., while present averages are only 6.5 lbs. The estimated biomass for cod on the Scotian Shelf, based on fishermen's catch records, is 1,264,000 metric tons. Present day estimates place the biomass to be only 5% of the biomass estimated for the 1850's.

#### *Questions & Answers*

**Question 1:** We must be careful of an alarmist reaction to historical fish sizes. Is the historical biomass presented here going to be a suggested baseline?

**Answer:** This study shows the baselines for some species in the 19<sup>th</sup> century and some for further back. The estimates reflect historical data and we are not advocating for any particular baseline.

**Comment:** WG members expressed that the WG needed to be careful not to manage Stellwagen Bank for cod, since the habitat may not be favorable for other species. There is a huge amount of scientific information required on the basic ecology for all species. The scientific community must determine what the best habitat for each species is, and then deal with it holistically.

**Question 2:** What about information on inshore fishermen and biomass estimates for inshore cod populations?

**Answer:** Inshore fishermen may not have kept as detailed logbooks as the offshore fishermen. Some extrapolations can be made depending on whether information exists on the percentage of vessels that fished in a given season. There are also Boston Fish Market records that can be examined as well.

**Question 3:** Different fishing techniques could result in different information on fish size. Is there information on hook size?

**Answer:** That information can be looked into. However, the historical practices for these fishermen were to catch the largest fish possible to increase their quintal. If they started to catch smaller fish, they would simply move on.

### **Perspective on SBNMS and Fishing**

Bruce Munson, recreational fishing representative, provided information on the ability of the SBNMS to regulate fishing, from a recreational fisherman's perspective. He based his views on his in-depth look at present and past documents covering the issue of the SBNMS's authority to regulate fishing within the Sanctuary. His interpretation of the documents is that the SBNMS does not have authority to regulate fishing within the Sanctuary.

#### *Fishing Regulation in the SBNMS*

At some point there was a verbal contract that fishing was not to be regulated within the Sanctuary. Federal Fishery Management Councils would regulate fishing, and this would not change with the introduction of the Sanctuary. The Sanctuary Designation Document does not list fishing under prohibited activities. If fishing regulations were proposed, the Designation Document would have to be changed. SBNMS can recommend restrictions to the Council, but the determination is that the SBNMS does not currently have the authority to regulate fishing within the Sanctuary. Based on this, the WG has two possibilities:

1. State that fishery management will remain the responsibility of the New England Fishery Management Council (NEFMC).
2. Make regulations and explicitly state to the Sanctuary Advisory Council (SAC) exactly what to regulate.

It is the feeling of some, that conservation groups are pushing the Sanctuary to become a no-take marine reserve. Such a move, should the SAC choose it, will become a major issue. Recreational fishermen look to NMFS for solid science and fishery management should be the responsibility of the NEFMC. The original public scoping comments may have been biased to reflect a particular point of view, but NEFMC should regulate fishing.

**Comment:** In response to the comment that conservation organizations are pushing for no-take marine reserves, WG members stated that habitat protection is what the WG should be talking about. The SBNMS has a mandate that is different than fisheries management.

### **SBNMS' Authority to Regulate Fishing**

Ed Lindelof, National Marine Sanctuary Program (NMSP), provided the WG with information on the Sanctuary's authority to regulate fishing. He referred to a memo dated 2/23/04 from Michael Weiss, Deputy Director of the NMSP, to Craig MacDonald, Superintendent of SBNMS, detailing this issue.

#### *Does the SBNMS Intend to Regulate Fishing?*

It is not the intent of the Sanctuary Program to set up marine reserves just for the sake of setting them up. The Sanctuary Program is not "bent" on regulating fishing. The Sanctuary Management Plan Review is used to see if past issues are still current and relevant to the time of original designation. The public has a concern for fisheries resources, and it is the scoping comments that provide the venue for this concern. The scoping comments are to be used as guidance points for the WG to cover. It is the WG that should get to the real issues that need to be covered. Recommendations can be made to the SAC, which can recommend if the Sanctuary or the NEFMC is best suited to manage the resource. As an example, krill on the West Coast became a concern and the NMDP is consulting with the FMC to see if they should develop a fisheries management plan. The SAC recommended regulations to the California sanctuaries, which decided it was the responsibility of the Marine Fisheries Council to deal with it. Every recommendation made by the WG's does not turn out as Sanctuary a regulation.

#### *Changing the Designation Document*

If the Sanctuary decides a regulation is needed, but it is not covered in the Designation Document, the Designation Document would have to be changed.

Changing the Designation Document requires that the Sanctuary complete the following steps:

- Make the required determinations and considering factors, as listed in the NMSA.
- Conduct required consultations with Congress, Federal, State, and local agencies, the appropriated Fishery Management Council, and other interested persons.
- Prepare appropriate designation documents which include an environmental impact statement (EIS), resource assessments, maps, revised draft management plan with the proposed changes to the term(s) of designation, basis of determinations, and any proposed regulations.
- Provide public notice and opportunity to comment on the proposed designation documents, including holding at least one public hearing.
- Provide the public notice and the proposed designation documents to Congress and the Governor of any State in which the Sanctuary is located.
- Publish notice of the final designation documents and providing notice to Congress and the Governor.
- Final changes to a term(s) of designation, and implementing regulations, shall take effect and become final after the close of a review period of 45 days of continuous session of Congress.

#### *The "Promise"*

Many people have had the idea that the Sanctuary would never regulate fishing. However, a timeframe was not set. The final EIS stated that the Sanctuary would not **currently** regulate fishing and the Magnuson Act does not preclude future regulations.

### *Questions & Answers*

**Question 1:** If the Fisheries Management Council moved to regulate fishing, does the Designation Document need to be changed?

**Answer:** No. However the problem is, regulation could be done well under the Magnuson Act, but still fail to comply with the NMSA. Standards of the NMSA are different than those of the Magnuson Act.

**Comment:** Some members of the WG stated that there is agreement that the Sanctuary would not currently regulate fishing because adequate regulations, made by the NEFMC, already exist. No further regulations are necessary. These members caution that if the Sanctuary recommends regulations, it may sound like a statement that the Council is not doing its job.

**Comment:** Some WG members noted the importance of realizing that a pristine environment may not be possible. It is necessary to know what level is acceptable and how that level relates to fisheries management. Current management is doing a great job at increasing productivity.

**Question 2:** If a change in the Designation Document is being made, can Congress stop it?

**Answer:** Yes, if there is no comment from Congress after 45 days, the changes go through. Congress can act to stop the changes.

**Question 3:** The Council takes time to get things done. Can the 120-day limit be increased, allowing the Council to have full control?

**Answer:** This is not the first time that the 120-day issue has come up. The limit is set in regulations. The Sanctuary simply provides the EIS and other information that the Council needs to draft regulations. It can give a model of the regulation and a range of alternatives.

**Comment:** Some WG members were uncomfortable with the idea that the Sanctuary prepares all draft EISs, designation documents, and in some cases, regulations. This could be seen as a conflict of interest. The Marine Fisheries Councils have the expertise to draft fishery regulations and more time should be provided for the Councils to enable them to fully control the process.

**Comment:** Some WG members felt that fishermen were assured, at the start of the designation process, that they would not have to defend themselves at yet another venue, other than the Marine Fisheries Councils. It is felt that there needs to be better integration between the Sanctuary, the Council, and the NMFS.

## **ACTION PLAN DEVELOPMENT**

### **Cables and Pipelines Action Plan**

The Chair opened discussion on the Cables and Pipelines Action Plan. It was explained to the WG that this document contained strategies to be recommended to the SAC. Strategies have the full agreement of the WG. Options could be used in cases where there is no full agreement of the WG. In such cases, advocates for particular options would be responsible for drafting the rationale for their option. The Cables and Pipelines Action Plan can be found in Appendix A at the end of this document. All additions

agreed upon by the WG are marked in **BLUE** and deletions are marked in **RED** font. Issues raised for each section during this discussion are noted below.

#### **Issue 1: Overview**

WG members were concerned with the mention “compatible” in the first paragraph of the overview. After discussing the issue the WG accepted the Options section as written in Appendix A of this document.

**Discussion:** “Compatible activities” have not been established. There is no method to determine compatible activities at this time. The Compatibility Determination WG, which has not yet convened, will be responsible for defining compatible activities.

#### **Issue 2: Strategy 1. Cables and pipelines are prohibited activities within the SBNMS**

WG members suggested minor word changes to the rationale to Strategy 1. This strategy was edited and accepted as written in Appendix A of this document.

**Discussion:** The WG wished the wording to be more general in regards to the prohibition of cables and pipelines. The WG also considered that the rationale should be applied to cables as a whole rather than just fiber optic cables. Fiber optic cables were considered to be the most benign, and there was no provision for power cables.

#### **Issue 3: Strategy 2. Identification of areas that should be avoided**

Wording changes were made to make the strategy sound more like a suggestion to the SAC. There was also concern over the use of “No Take Zones” or “Ecological Reserves”. WG members had concerns over how Strategy 2 was originally drafted. They felt that companies would simply do whatever was necessary to bury cables and pipelines. After amendments were made, the WG accepted the Strategy 2 as written in Appendix A of this document.

**Discussion:** The WG decided that wording needed to be changed to make the strategy sound more like a suggestion to the SAC. The strategy title and the first sentence were revised accordingly. As originally written, WG members felt that companies would “blast” through areas where cables and pipelines could not be buried. Amendments were made to address this issue. WG members wanted the “No Take” Zones and Ecological Reserves to be removed, but added mention of designated areas of special ecological concern. The last sentence of the rationale was also removed. The mention of “endangered species habitat” raised issues due to its vague definition. WG members were worried that usage of this term could become a point of litigation in the future. Other members wanted the term included, as it is an important item that needs to be addressed within the Sanctuary. Issues were raised that the definition for endangered species habitat was too vague. Members were worried that, taken to extreme, the entire Sanctuary could be classified as endangered species habitat. It was determined that the term “endangered species habitat” was purposely left as a generalized term, but because it worked for all sides and provided direction, it should be included. The same language is also used in the NOAA Proposed Guidelines.

#### **Issue 4: Strategy 3. Establishment of minimum criteria to be met before an application is considered:**

Strategies 3a, 3b, and 3e were accepted by the WG as written in Appendix A of this document. Strategy 3d had a minor wording change with the addition of “significantly” to the rationale, and was accepted by the WG as written in Appendix A of this document. Strategy 3c needed further clarification for research

and access to data. After discussing the issues for Strategy 3c, amendments were made, and the WG accepted the strategy as written in Appendix A of this document.

**Discussion:** The WG decided that some control should be place on the data collected from research done concerning cables and pipelines. Data should be controlled by the Sanctuary and not by the companies that conduct the research. This would insure that data would be available to the Sanctuary, but not necessarily to the general public, thus preserving proprietary information from being distributed. Amendments were made to address this point. The WG also determined that research should be done prior to construction to establish baseline information, as well as after construction to monitor the site. Wording was changed by the WG to address this point.

**Issue 5: Strategy 4. Assessment of application fee**

Strategy 4 was struck from the document.

**Discussion:** Some WG members felt it was important to establish a fee for companies to apply for cable and pipeline construction. Money raised from this fee would be used for research needs in the Sanctuary. However, others felt that the funds must be tied to the specific cable and pipeline construction projects and not be open-ended. There was also concern over the scale of the fee. It was decided that, while addressing Strategy 5, both strategies 4 and 5 covered the same issues. After reviewing and amending Strategies 5, Strategy 4 was struck from the document.

**Issue 6: Strategy 5. Assessment of application and permit fees to cover:**

The WG decided that by removing “non” and adding “and permit” would cover the needs posed by Strategy 4. Therefore, Strategy 4 was struck and Strategy 5 was re-numbered to become the new Strategy 4, as shown in Appendix A of this document. Both newly numbered strategy 4a and 4b were accepted by the WG as written in Appendix A of this document. Both newly numbered strategy 4c and 4d needed revision to be more specific.

**Discussion:** The WG concluded that “fair market value” would be based on what other jurisdictions charged. It was important that “fair market value” be applied only to the impacts to resources within the Sanctuary caused from construction. The phrase “the impacts to resources within the Sanctuary caused by laying cables and pipelines” was added to the ends of strategy 4c and 4d as shown in Appendix A. After amendments were made, all of Strategy 4 was accepted by the WG as written in Appendix A of this document.

**Comment:** WG members were concerned that costs for fees could become prohibitive to companies, making them move to places outside the Sanctuary. This may adversely affect habitats that are more sensitive than those within the Sanctuary. Assessing “fair market value” could look like the sale of real estate, allowing those that pay a fee to be able to do what they want. Caution needs to be taken when establishing “fair market value”. It was also determined that should alternate areas outside the Sanctuary be favored by companies, NMFS could become involved in protecting the habitat if necessary.

**Issue 7: Strategy 6. Posting of a “Performance Bond”**

With the removal of the original Strategy 4, Strategy 6 was re-numbered to Strategy 5. The rationale for the newly numbered Strategy 5 was struck from the document. After amendments were made, the WG accepted the new Strategy 5 as written in Appendix A of this document.

**Discussion:** Members of the WG were concerned that a performance bond may not provide long-term protection from unforeseen emergencies with cables and pipelines. A performance bond would also need to have a level or limit, since cables would potentially pose less risk. WG

members also felt that the purpose for the cable or pipeline should be accounted for. For example, if the cable or pipeline provides a public utility, public funds should be available for emergency situations. It was decided that the WG did not have the expertise to complete a rationale, but the strategy was important to include. The WG agreed to strike the rationale from the document.

**Comment:** The WG suggested that long-term insurance could be used for potential emergency situations. It was not clear if such a precedent had been set with other Sanctuaries. The WG requested Sanctuary staff to look into the possibility of insurance to cover long-term costs resulting from unforeseen emergencies.

## **ECOSYSTEM ALTERATION IMPACTS OF MOBILE FISHING GEAR: AGREEMENTS, RECOMMENDATIONS OR OPTIONS**

### **Proposed Mobile Fishing Gear Recommendations**

The Chair opened discussion on the proposed recommendations for mobile fishing gear. It was explained to the WG that this document contained recommendations that were still in progress. These recommendations were assembled as a “straw-man” list for recommendations to be discussed. This discussion is a continuation from the last meeting, and no recommendations have been agreed upon. The proposed recommendations can be found in Appendix B at the end of this document. All additions suggested by the WG are marked in **BLUE** and deletions are marked in **RED** font.

### **Issue 1: Recommendations being discussed at 26 February meeting**

**Discussion:** The proposed mobile gear recommendations were discussed by the WG. Members reviewed information on mobile gear impacts on the benthic environment that were presented in past meetings. It was understood that mobile gear had impacts across multiple habitat types but that natural, frequent disturbances could have similar impacts on the benthic environment. However, recovery times differed between habitats and levels of disturbance. Impacts also differ between gear types, and between similar gear types fished by different fishermen. WG members felt that the “first swipe” of gear across a pristine habitat was not fully addressed, and that recovery from such an impact needed to be documented.

There was disagreement on how impact assessment research should be done. WG members disagreed about the use of no-extraction areas within the Sanctuary. Some members felt that no-extraction areas were needed in the Sanctuary, while others felt that the Bank was already a heavily fished area and not pristine to begin with. It was stated that such areas would be difficult to enforce. These members also felt that such areas could be found within the already existing closed area in the overlap between the SBNMS and the Western Gulf of Maine Closed Area. WG members also felt that the effects of mobile fishing gear were being addressed at the Council level with the NEFMC Omnibus Amendment. Members expressed that no-extraction areas would be fishing regulation, and as such, should be the responsibility of the Fishery Management Council. WG members were concerned that habitat areas to be researched should be identified. Members felt that at this time, they did not have the information necessary to make decisions on specific habitat types to research.

The discussion continued over the use of no-take areas. Some members continued to stress that no-take areas should not be used within the Sanctuary. If no-take areas were to be used, some members stated that reimbursement should be made to resource users. It was clear that decisions on particular mobile gear recommendations would not be reached at this meeting. The WG Chair moved to delay this discussion and continue it after presentations were made on information that the WG felt it needed.

**Comment:** WG members expressed that no one would argue that there are no impacts to the benthic environment caused by mobile fishing gear. However, the question is one of cost vs. benefit to fish in terms of changes to the environment. Currently, fishermen have reduced bottom time and increased CPUE. Fishing gear has been managed to develop the resource, but there are still impacts. What is needed is an understanding of the level of impact that is acceptable. If the standard is some deviation from a natural ecosystem, then we need to know what would be acceptable. This is very subjective. This type of information should be understood everywhere, and not just within the Sanctuary. We have the “sliver” and can talk about experimental areas, but there needs to be a good reason for it.

**Comment:** WG members stated that ecosystem recovery seems to be getting better, but it is hard to know. What is needed is comparison points to know what no-impact areas look like. This requires no-extraction areas, and the Sanctuary is a good place for it. There can be fishing in the Sanctuary, but there must be some areas of no impact used for research purposes.

**Comment:** WG members commented that specific habitat areas can be identified, but currently we can't identify areas to set aside. There should be research, but we need to know how impacts would be assessed. Quantifying impacts takes a very long time, and areas on the Bank have been fished and are not pristine. The WG should use caution with what it recommends. Set-aside, or no-extraction, areas would be useful; however, there have been many habitats discussed. The Sanctuary is geographically small and already impacted. Set-aside areas may not have short to medium time-scale benefits.

**Comment:** WG members stated that people would accept research areas, but not no-take research areas. The SBNMS may not be the best place for this type of research to take place. There may be more appropriate areas for this type of research outside of the Sanctuary. The Sanctuary is already a heavily used area.

## **NEW BUSINESS**

### **Mobile Gear Impacts and Natural Disturbances**

The WG decided that more information was needed on mobile gear impacts and natural disturbances, as tested by comparison of un-fished and fished areas. Peter Auster and James Lindholm will be asked to present information concerning this issue.

### **Bycatch**

The WG decided that information was needed concerning bycatch and bycatch reduction methods. Chris Glass and Frank Mirarchi will be asked to present information concerning this issue.



**Stock Assessment**

The WG decided that information was needed concerning stock assessment within the Sanctuary. SBNMS staff was asked to find a suitable stock assessment expert to present information concerning this issue.

**Next Meeting**

The next meeting of the EA WG is set for April 27, 2004.

**FINAL COMMENTS**

Meeting adjourned at 3:30 pm.

## Appendix A

Additions are marked in **BLUE**

Deletions are marked in **RED**

### **DRAFT ACTION PLAN FOR THE LAYING OF CABLES AND PIPELINES WITHIN THE SBNMS (2 APRIL 2004)**

#### **OVERVIEW:**

This Action Plan pertains to the laying of submarine cable and pipelines within the SBNMS. The laying of submarine cables and pipelines is a prohibited activity in the SBNMS. However, prohibited activities can be authorized, under certain limited circumstances, through the issuance of *Special Use Permits*. The issuance of such permits depends on the extent to which the prohibited activity is compatible with the resource protection mandate of the sanctuary and the degree to which the activity meets regulatory and other requirements.

In August of 2000, the SBNMS issued a *Special Use Permit* to 360networks, Inc to allow the laying of a high-capacity fiber optic within the Sanctuary, as part of a connection between the United States and Europe (the Hibernia Transatlantic Telecommunications Project). The *Special Use Permit* allowed 360network Inc. to traverse approximately 19.49 kilometers (km) of the northern portion of the SBNMS. In 2002, 360network Inc. filed for bankruptcy. The cable was later purchased by CVC, Inc.

Public comment received during the SBNMS Management Plan Review (MPR) process raised questions pertaining to the existence of cables and pipelines within the sanctuary and the appropriateness of the sanctuary's management process in relation to cables and pipelines. The issue was considered particularly important because the location of the SBNMS in relation to Boston, MA increases the probability that the sanctuary might receive future requests to allow cables or pipelines within its boarder. To that end, the Ecosystem Alteration Working Group (EAWG) recommended a series of strategies for managing cables and pipelines.

The EAWG emphasized that, while cables and pipelines are considered together because they each involve laying permanent or semi-permanent material on the seabed, the risk posed by pipelines was "several orders of magnitude greater" than that posed by fiber optic cables. EAWG members also agreed that this asymmetry should not lower the standard of scrutiny received by cables. Rather, it should increase the standard of scrutiny to which pipelines should be held. In general, the EAWG agreed with the position proposed by the National Marine Sanctuary Program contained in the Advanced Notice of Proposed Rulemaking: Installing and Maintaining Commercial Submarine Cables in National Marine Sanctuaries (FR/Vol.65,No.164,pgs:51264-51270). One major difference is EAWG's recommendation that a "performance bond" be posted by companies to ensure accountability and the addition of a "non-market value" consideration when calculating fees charged to cable and pipeline applicants. The group also considered it important to stress that applications would be assessed on a "case-by-case" basis and that the existence of one cable or pipeline in the sanctuary did not necessarily mean that others would be approved.

## EXISTING REGULATIONS PERTAINING TO THE SBNMS - TBD

### STRATEGIES:

1. **Prohibition on laying of cables and pipelines within the SBNMS, with an option to authorize *Special Use Permits***
2. **Identification of areas that must be avoided**
3. **Establishment of minimum criteria to be met before an application is considered**
4. **Assessment of application fees**
5. **Assessment of non-application fees**
6. **Posting of a “Performance Bond”**

**STRATEGY 1. Cables and pipelines are prohibited activities within the SBNMS.** *Special Use Permits* may be issued by the sanctuary following guidelines published in NOAA’s Advanced Notice of Proposed Rulemaking: Installing and Maintaining Commercial Submarine Cables in National Marine Sanctuaries (FR/Vol.65,No.164,pgs51264-51270).

Rationale – There was agreement on a ~~complete~~ **general** prohibition on cables and pipelines within the sanctuary. EAWG acknowledged that, in some cases, allowing a sanctuary option might decrease overall environmental harm (e.g., the proposed route impacted more sensitive areas outside the sanctuary). The group emphasized that the risk posed by pipelines was considered “several orders of magnitude greater” than that posed by **fiber optic** cables. The group also agreed that this asymmetry should not lower the standard of scrutiny received by cables, but should increase the standard of scrutiny for pipelines.

**STRATEGY 2. Identification of areas that ~~should~~ **must** be avoided.**

Areas that ~~must~~ **should** be avoided **may** include rocky, hard bottom areas, **and/or** where cables or pipelines cannot be buried, endangered species habitat **and/or** **designated areas of special ecological concern** “No Take zones or “Ecological Reserves” ~~[Habitat Research Areas, Habitat Areas of Critical Concern.???].~~

Rationale – Some areas within the sanctuary are particularly sensitive to disruption and should not be considered as routes for cables or pipelines. ~~However, the group was not in agreement as to whether or not “No Take” zones or Ecological Reserves” should exist within the SBNMS.~~

**STRATEGY 3. Establishment of minimum criteria to be met before an application is considered:**

**a. No feasible alternative route exists**

Rationale – There was agreement that this phrase should not be used by industry as a way to structure alternatives so that the SBNMS was the only feasible alternative. It should not mean that the SBNMS was the least expensive route. Ecological considerations should be considered first and then economic considerations.

**b. Impact to sanctuary resources should be minimal and temporary.**

Rationale – The group preferred this wording to the “negligible” and “short-term” wording in the proposed rule because the terms are defined under the Sustainable Fisheries Act, whereas no legal definition exists for negligible and short term.

**c. Appropriate mitigation and monitoring is included and paid for the applicant**

Rationale - The WG felt that research on conditions at the proposed site must be carried out pre and post construction. Pre construction research was seen as needed in order to develop baseline data about the habitat potentially being disturbed. Post construction research was needed to assess potential impacts of the construction. It was also agreed that research would have to be conducted at set periods ~~before~~ **after** construction to **develop baseline data and after construction** to monitor the site for long-term impacts and restoration. The applicant would pay such research and any needed mitigation. Funds would be provided to the Sanctuary, which could, if appropriate, use Sanctuary researchers or hire outside contractors through an open and competitive RFP process. **The Sanctuary should have full access to all data.** The group did not support allowing the applicant to choose its own contractor for the research, as it was felt that this could result in a conflict of interest.

**d. The route will not have detrimental impacts on fishing interests**

Rationale - Fishing activities play an important economic and social role in the coastal communities associated with the SBNMS. The laying of cable and pipeline should not **significantly** disrupt or harm fishing interests in the short or long term.

**e. The applicant agrees to remove all or part of the cable at the end of its life if determined appropriate by NOAA**

Rationale - The sanctuary should have the option of having the cable or pipeline removed rather than it's persisting as derelict debris.

**~~STRATEGY 4. Assessment of application fee~~**

**~~Option 1:~~** Pursuant to sanctuary regulations, an application fee will be assessed for any approved project

~~—— Rationale — An application fee could be charged and paid to the sanctuary to fund ecosystem level research deemed important. This option was modeled after conditions placed on applicants in the United Kingdom~~

**~~Option 2:~~** An application fee should not be assessed

~~—— Rationale — An application fee is an unnecessary charge.~~

**STRATEGY 45. Assessment of ~~non~~-application and permit fees to cover:**

- a. Costs incurred or expected to be incurred as part of issuing a *Special Use Permit*
- b. Costs incurred, or expected to be incurred, as a direct result of the conduct of permitted activities, including monitoring costs
- c. Costs that represent the *Fair Market Value* for **the impacts to resources within the Sanctuary caused by laying cables and pipelines**~~use of sanctuary resources.~~
- d. Costs that represent the *Non-market Value* **for the impacts to resources within the Sanctuary caused by laying cables and pipelines.**~~of sanctuary resources.~~

**STRATEGY 65. Posting of a “Performance Bond”**

A “Performance Bond” should be posted by the applicant or companies acting on the behalf of the applicant to ensure that agreed upon safeguards and conditions are met.

~~———— Rationale ——— WG members were concerned that applicants and existing or subsequent owners should be responsible for any environmental damages that result from the siting of a cable or pipeline and that they be held responsible for removing the cable or pipeline at the end of its useful life. To ensure accountability, the group agreed that a “performance bond” should be posted by companies prior to construction. This accountability would include conditions accepted as part of the construction agreement and would include any adverse environmental consequences resulting from inadequate construction or engineering.~~

## Appendix B

Additions are marked in **BLUE**

Deletions are marked in **RED**

Recommendations being discussed at 26 February meeting

1. The SAC **tasks the Sanctuary to** develop a proposal for Habitat Areas of Particular Concern within the sanctuary, potentially as part of the NEFMC's Omnibus EFH Amendment
2. The SAC **tasks the Sanctuary to** develop for the NEFMC's consideration a proposal for dedicated habitat research areas within the sanctuary, and in the context of existing and continuing conservation and management efforts in New England
3. Identify habitat types within the SBNMS and set aside areas for research purposes
4. EAWG should support the NEFMC's decision to remove bottom-tending mobile gear from the "sliver"
- ~~5. The Atlantic States Marine Fisheries Commission should restrict lobster fishing in the "sliver"~~
- 56.** Document changes in condition of SBNMS since 1992 (designation)



2 April 2004 Meeting

*Gerry E. Studds* **Stellwagen Bank National Marine Sanctuary**  
Management Plan Review

**Ecosystem Alteration Working Group – Draft Agenda****Date:** 2 April 2004**Location:** MA Audubon Endicott Center – 346 Grapevine Rd. Wenham, MA  
978-927-1122

TIME	TOPICS AND OBJECTIVES
8:00-8:15	Welcome, Adoption of Agenda and Minutes from last meetings. Porter Hoagland
8:15-8:30	Review: Action Items Porter Hoagland
08:30-9:00	Cables and Pipeline Action Plan Porter Hoagland and Dave Wiley
9:00-9:30	Then and Now I: Presentations/discussion; Impacts of mobile gear and fishery changes since Sanctuary designation in 1992 Dave Wiley Commercial Fishing Reps
9:30-9:45	Then and Now II: Trends in fish size in the SBNMS John Crawford (CLF)
9:45-10:00	Questions
10:00 – 10:15	Break
10:15-10:30	Then and Now III: Fishing for Baselines: What do 19 <sup>th</sup> Century Logs Tell us? Bill Leavenworth and Karen Alexander (UNH, HMAP Program)
10:30-10:45	Questions
10:45-11:00	Perspective on SBNMS and Fishing Bruce Munson (Recreational Fishing Community)
11:00-11:15	SBNMS' Authority to Regulate Fishing Ed Lindelof (National Marine Sanctuary Program, Silver Spring, MD)
11:15-12:15	Discussion on recommendations to SAC
12:15 – 12:45	<b>Lunch</b>
12:45 – 3:00	Discussion on recommendations to SAC & Action Plan Development
3:00 – 3:15	Break
3:15 – 3:45	Changing Coastal Food Webs in the Gulf of Maine Bob Steneck (UMaine)
3:45 – 4:00	Questions
4:00-5:45	Biomass Removal Discussion
5:45 – 6:00	Next Meeting